EC centrifugal module - RadiCal

backward-curved, single-intake

with support bracket

Nominal data

Type	**K1G225-RD18-02**
Motor	**M1G074-BF**

Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2700
Power consumption	W	115
Current draw	A	2.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	2.25 kg
Size	225 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum, painted black
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K (mating connector installed)
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2+
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics - Reverse polarity protection
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Approval	UL 507; CSA C22.2 No. 113; EAC

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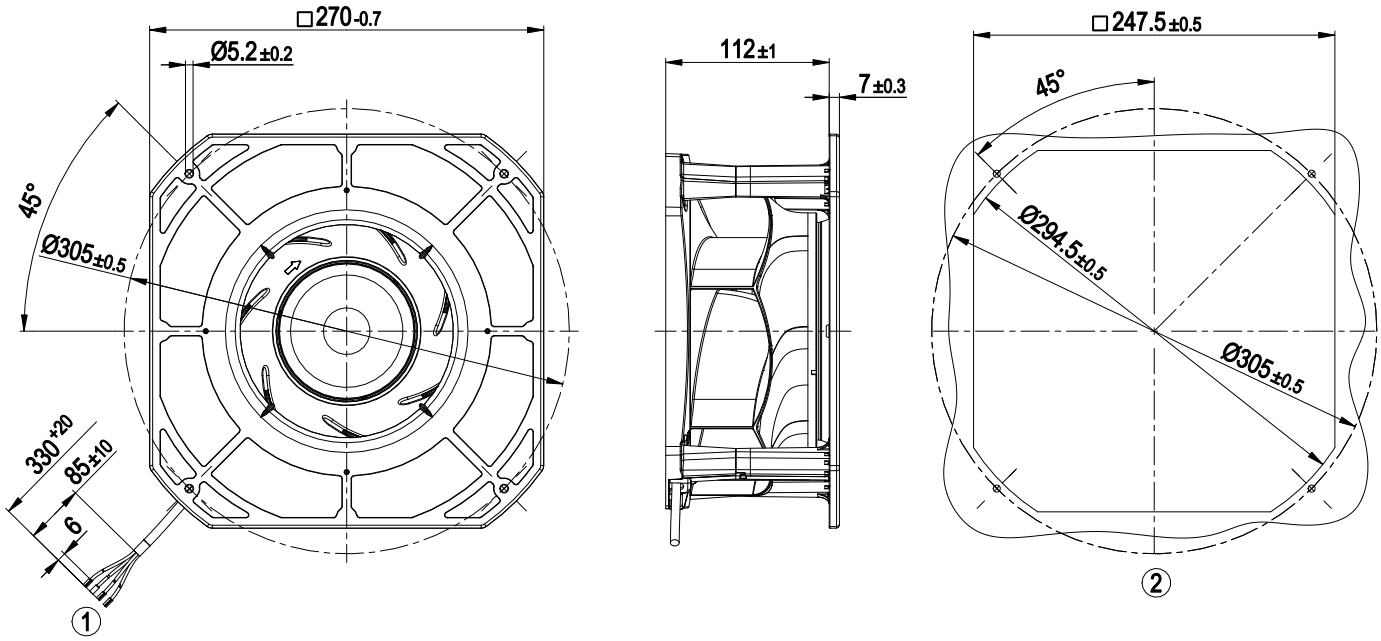
Product drawing



1	Cable PVC 4x AWG18, insulating hose
	4x splice
2	Mounting dimensions

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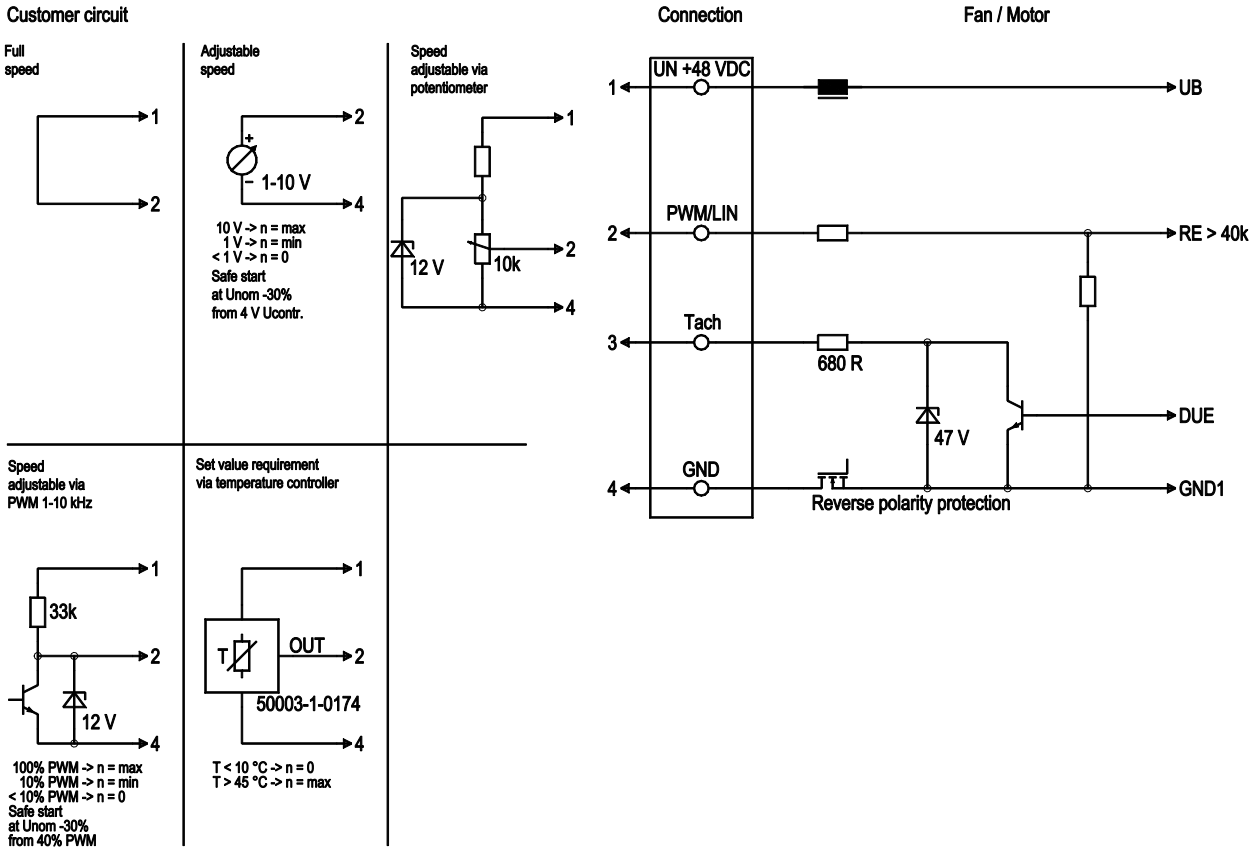
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	UN +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	PWM/LIN	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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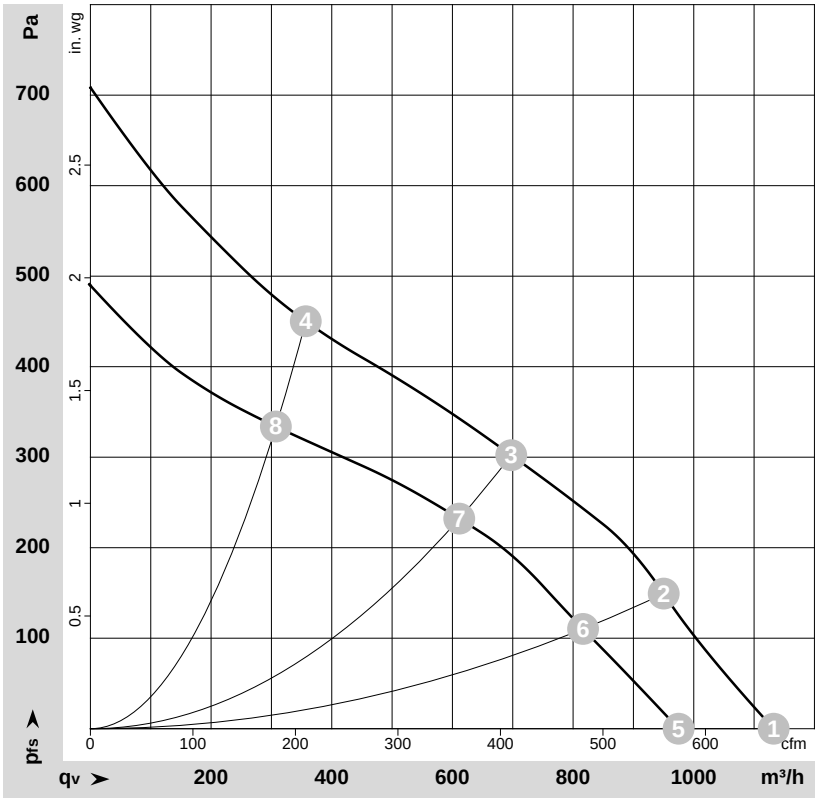
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-184547-1
Measurement: LU-184602-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	48-57	2700	115	2.40*	1130	0	665	0.00
2	48-57	2610	118	2.50*	950	150	560	0.60
3	48-57	2545	119	2.50*	695	300	410	1.20
4	48-57	2720	116	2.40*	355	450	210	1.81
5	36	2330	74	2.06	975	0	575	0.00
6	36	2245	80	2.21	815	110	480	0.44
7	36	2235	80	2.22	610	233	360	0.94
8	36	2335	74	2.06	305	333	180	1.34

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · * = Current measured at nominal voltage · q_V = Air flow · p_{fs} = Pressure increase